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CENTRAL FAX CENTER

MAY 08 2009

Appl. No. 10/582,057
Amd. B dated May 8, 2008
Page 3**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. -9. (Canceled)

10. (Currently Amended) A heat exchanger comprising:

- an enclosure provided with a plurality of tubes, in which a heat-transfer fluid circulates, said fluid conveying cleaning balls;

- feed and outlet collectors joined to the enclosure via a first and a second side wall of the enclosure opposite each other, respectively, in order to bring the heat-transfer fluid into the enclosure and to discharge said heat-transfer fluid coming from the enclosure respectively, the outlet collector being ~~produced as one part~~ in the form of a single piece having a first portion forming a flow converger and a second portion forming a nozzle that is joined to said flow converger, this the outlet collector having an upstream mouth that directly joins the outlet collector to the enclosure and a downstream mouth via which it is joined that joins the outlet collector to a heat-transfer fluid discharge pipe, the cross section of the upstream mouth being greater than that of the downstream mouth; and

- a separation device placed in the second portion of the outlet collector in order to separate the cleaning balls from the fluid conveying them, which device comprises at least two pairs of grids placed near the downstream mouth and each mounted so as to rotate on a spindle that extends across said second portion, the spindles for the grids being pairwise parallel to one another, this separation device forming a filtering structure that converges on a recovery device placed in said second portion so as to recover the cleaning balls leaving the separation device.

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11. (Previously Presented) The exchanger as claimed in claim 10, in which said first portion has a rectangular cross section and said second portion has an approximately constant circular cross section.
12. (Previously Presented) The exchanger as claimed in claim 10, in which the separation device comprises two pairs of grids having a W-shaped profile converging on the recovery device.
13. (Previously Presented) The exchanger as claimed in claim 11, in which the separation device comprises two pairs of grids having a W-shaped profile converging on the recovery device.
14. (Previously Presented) The exchanger as claimed in claim 10, in which each grid comprises a row of spaced-apart parallel blades.
15. (Previously Presented) The exchanger as claimed in claim 14, in which a plurality of coaxial spacers together form the spindle for supporting each grid.
16. (Previously Presented) The exchanger as claimed in claim 14, in which each of said pairs of grids consists of a central grid, the blades of which are relatively long, and of a peripheral grid located near the wall of the collector and the blades of which are relatively shorter.
17. (Previously Presented) The exchanger as claimed in claim 15, in which each of said pairs of grids consists of a central grid, the blades of which are relatively long, and of a peripheral grid located near the wall of the collector and the blades of which are relatively shorter.
18. (Previously Presented) The exchanger as claimed in claim 10, which includes a device for measuring a fluid pressure difference on either side of the grids, said device being connected to a

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system designed to cause the grids to rotate when this pressure difference is greater than a predetermined value.

19. (Previously Presented) The exchanger as claimed in claim 11, which includes a device for measuring a fluid pressure difference on either side of the grids, said device being connected to a system designed to cause the grids to rotate when this pressure difference is greater than a predetermined value.

20. (New) A process for reducing the height of an existing heat exchanger that includes an enclosure provided with a plurality of tubes in which a heat-transfer fluid circulates, the fluid conveying cleaning balls, an outlet collector having an upstream mouth that directly joins the outlet collector to the enclosure and a downstream mouth that joins the outlet collector to a heat-transfer fluid discharge pipe having a first length, and an apparatus for intercepting the cleaning balls placed in the discharge pipe;

the process comprising the steps of :

- removing the apparatus for intercepting the cleaning balls from the discharge pipe,
- placing a separation device in the outlet collector in order to separate the cleaning balls from the fluid conveying them; and
- shortening the discharge pipe to a length less than the first length.